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A remarkable new Parathalassius (Diptera: Empididae) from South Africa, with a key to world species

by

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SYNOPSIS

The first South African representative of the genus *Parathalassius* Mik is described from the Cape. A key is provided to the known species of this otherwise Holarctic genus.

The genus *Parathalassius* Mik (1891) was erected to receive *P. blasigii* Mik found on the sand of the flat sea-coast at Venedig [Venice], in company with the Dolichopodid *Epithalassius sanctimarci* Mik which it superficially resembles. Since then Melander (1906) has described *P. aldrichi* from 'dry sands in back of the beach at Monterey, California' (also recorded from Washington) and *P. candidatus* from 'Friday Harbor, San Juan Co., Washington'. Cole (1912) described a further North American species, *P. melanderi*, from Laguna Beach, California, found on the wet sand at the very edge of the surf.

The first representative of this interesting genus is now described from South Africa.

In my recent monograph of South African Empididae (Smith, 1969) *Parathalassius* keys to couplet 6 (p. 30) without difficulty, but here it may not be clear if it belongs in Ocydromiinae, near *Stuckenbergomyia* (Smith, 1971), or proceeds on to the *Microphorus*-group of genera. The anal cell is a little shorter than the second basal cell and the vein closing the anal cell is straight, suggesting that the genus belongs in Ocydromiinae; however, the anal cell is about as long as the second basal cell, and other characters given in the diagnosis below, especially the lack of a fore-tibial gland, indicate its closer affinities with the *Microphorus*-group of genera, otherwise only represented in Southern Africa by *Edenophorus* Smith. The two genera may be separated as follows:

1. Eyes pubescent, third antennal segment short, oval with a long, slender arista. Vein closing anal cell straight .. .. **Parathalassius** Mik

— Eyes bare, third antennal segment longer and pointed with a short arista. Vein closing anal cell recurrent .. .. **Edenophorus** Smith

The similarity of the *Microphorus*-group of genera to the Dolichopodidae has been discussed elsewhere (Colless, 1963; Smith, 1969; Tuomikoski, 1966), and, as mentioned above, *Parathalassius* in particular bears a strong resemblance to the Dolichopodid genus *Epithalassius*. However, Dolichopodidae likely to be confused with *Parathalassius* should be distinguishable at once by the confluent discal and second basal cells and the usually convergent r_{4+5} and m_{1+2}.

Genus *Parathalassius* Mik

Parathalassius Mik, 1891, *Wien Ent. Zeit.* **10**: 217.

Small (2–3 mm) robust, silvery-grey pruinose flies with whitish bristles. Head longer than broad, occiput rather flattened. Eyes widely separated on the frons in both sexes, clothed with pubescence which is sometimes long below. Face narrow. Antennae short, third segment with a slender arista which is nearly as long as the antenna itself. Proboscis very short, tubular and thick, scarcely projecting. A pair of strongly converging fronto-orbitals. Thorax not strongly arched, five or six pairs of dorsocentrals, a posthumeral, several supra-alar and two or more scutellar bristles present. Prothoracic sternum reduced. Pleurae uniformly and densely pruinose and devoid of hairs. Abdomen short and densely pruinose. Male genitalia large, globose and twisted to the right. Legs simple and pruinose, without trace of fore-tibial gland. Femora more or less ciliate and middle tibia with an apical bristle. Wings narrow with anal angle poorly developed. Third longitudinal vein (r_{4+5}) simple. Discal cell (1st M_2) present with 3 veins issuing from its end. Basal cells short. Anal cell (Cu) about as long as second basal cell (M), the veinlet closing it straight and at an angle of about 90°. The anal vein is abbreviated and the portion beyond the anal cell is not in alignment with the basal portion.

Type species *Parathalassius blasigii* Mik (1891), monobasic

The species of this genus are usually found on the sands of the seashore; in their pale bristles and silvery-grey colour they resemble other flies typically found in this habitat.

Parathalassius capensis sp.n.

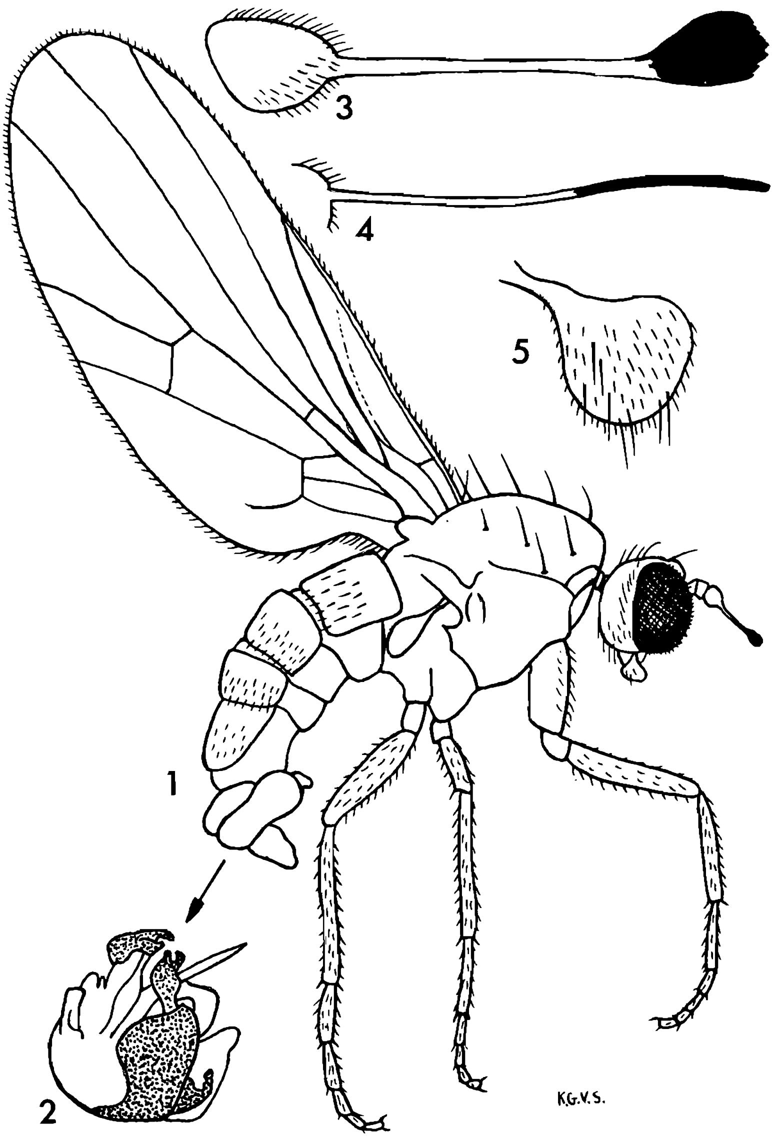
(whole insect, fig. 1)

♂ Head black in ground colour but entirely silvery-grey pruinose, bristles whitish. Frons about 6 times ocellar width at level of first ocellus; face a little narrower beneath antennae but eyes touching below. A pair of slightly incurved frontal bristles, a pair of slender widely divergent ocellar bristles, a pair of convergent vertical bristles and a series of post-ocular occipital bristles with other longer pale bristles below. Antennae short, yellow, first segment a little shorter than second segment, third segment almost as long as first and second segments together and with a long, spatulate arista which has the broadened, leaf-like, serrated tip blackish (fig. 3). Eyes clothed with uniform, short pubescence. Proboscis short with fleshy labella and broad spatulate palpi (fig. 5).

Thorax: silvery-grey pruinose with whitish bristles; two narrow abbreviated black stripes anteriorly ending before level of front dorsocentral bristle. A posthumeral; two widely spaced upper and lower notopleurals; a supra-alar and a postalar bristle present. Dorsocentrals long, uniserial, five (sometimes six) bristles in each row; acrostichals small, biserial down mid-line, with a further irregular outer row near dorsocentrals. Prothoracic sternum yellow and bare. Pleurae silvery-grey pruinose without bristles. Scutellum with two widely spaced convergent marginal bristles.

Abdomen: dark but silvery-grey pruinose with margins of tergites paler, yellowish; venter more yellowish; short pale haired; genitalia (fig. 2) large and complex, mostly yellowish-brown.

Legs: simple, yellow and pale haired. Femora weakly ciliate beneath, but apart from



Figs 1–5: *Parathalassius capensis* sp.n.; (1) ♂ whole insect (2) ♂ genitalia, enlarged (3) ♂ third antennal segment and arista (4) ♀ arista (5) ♂ palpus (all macerated).

apical bristle on mid tibia, the legs without strong bristles.

Wings: clear, veins pale; anal vein 1½ times length of anal cross-vein. Halteres yellow.

♀ Similar to male, but face very narrow and triangular, the eyes nearly touching below; antennae with arista (fig. 4) simple although similarly darkened distally. Abdomen longer haired and terminating in a small pair of anal papillae.

Length: 3 mm.

Holotype ♂, paratypes 6 ♂♂, 2 ♀♀, Arniston coastal dunes, Bredasdorp district, CAPE PROVINCE, 22–23 October 1964 (*B. & P. Stuckenberg*). Paratypes 4 ♂♂, 5 ♀♀, Zwartkops River, coastal dunes, Port Elizabeth, Cape Province, 29 October 1964 (*B. & P. Stuckenberg*). Paratypes ♂ ♀, Brak River mouth, Mossel Bay District, 23 October 1964 (*B. & P. Stuckenberg*). In Natal Museum, except for 4 ♂♂, 3 ♀♀ paratypes retained in British Museum (Natural History), London.

The species may be distinguished at once from other members of the genus by the spatulate male arista, the large, spatulate palpi, the narrow face, and eyes touching below.

The known species may be separated by the following key:

Key to the described species of *Parathalassius* Mik

1. Legs mostly dark .. .. (New World species) 2

— Legs mostly yellow .. .. (Old World species) 4

2. Anal vein 3 times length of anal cross-vein .. (N. America) **candidatus** Melander

— Anal vein at most twice length of anal cross-vein 3

3. Smaller (2 mm) pale grey species. Legs and abdomen short haired. Wings broadly brownish .. .. (N. America) **melanderi** Cole

— Larger (2,75–3 mm), darker grey species. Legs and abdomen with longer bristles and hairs. Wings clear .. .. (N. America) **aldrichii** Melander

4. Antennae yellow with arista of male (fig. 3) spatulate and black at tip and of female blackish at tip. Eyes touching on face. Legs completely yellow (S. Africa) **capensis** sp.n.

— Antennae blackish with arista simple in both sexes. Eyes separated on face. Coxae and femora heavily greyish dusted .. .. (S. Europe, N. Africa) **blasigii** Mik

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